primary studies - published RCT

Newborn screening alone insufficient to improve pulmonary outcomes for cystic fibrosis.

Code: PM32546430 **Year:** 2021 **Date:** 1987 **Author:** Barreda CB

Study design (if review, criteria of inclusion for studies)

cross-over design study

Participants

5 patients with cystic fibrosis (12.1 +/- 2.6 years of age) and 3 control subjects

Interventions

placebo or taurine (30 mg/kg/d) for two 1-week periods, a month apart, followed by a fat meal test.

Outcome measures

Blood samples were drawn 0, 1, 2, 3, 5, 8 hours after the meal. absorption of triglycerides, total fatty acids, and linoleic acid

Main results

Four patients with cystic fibrosis and severe steatorrhea despite appropriate enzyme therapy showed a significant (P less than .05) improvement in the absorption of triglycerides, total fatty acids, and linoleic acid while receiving taurine supplements. Three control subjects and one child with cystic fibrosis and mild steatorrhea receiving enzyme therapy did not experience such an effect. The difference in triglyceride absorption, when calculated as the area under the curve, receiving and not receiving taurine was significantly (P less than .05) correlated with the degree of steatorrhea. Furthermore, in contrast to control subjects, the fatty acid composition of chylomicrons in these four study patients showed important discrepancies with that of the fat meal and was corrected, in part, by taurine supplementation.

Authors' conclusions

These results suggest that taurine supplementation could be a useful adjunct in the management of patients with cystic fibrosis with ongoing fat malabsorption and essential fatty acid deficiency.

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See also

J Cyst Fibros. 2021 May;20(3):492-498. doi: 10.1016/j.jcf.2020.06.002. Epub 2020 Jun 13.

Keywords

Adult; Child; non pharmacological intervention - diet; Supplementation; taurine; Malabsorption; Nutrition Disorders; Amino Acids; Proteins;